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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,031	10/23/2003	David William Boerstler	AUS920030579US1	2377

45327 7590 04/25/2005

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EXAMINER

MIS, DAVID C

ART UNIT PAPER NUMBER

2817

DATE MAILED: 04/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/693,031	Applicant(s) BOERSTLER ET AL.	
	Examiner David Mis	Art Unit 2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,5 and 7-9 is/are rejected.
- 7) ☒ Claim(s) 2,3 and 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1023</u> . | 6) <input type="checkbox"/> Other: _____ |

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4 and 8 are rejected under 35 U.S.C. 102(b.) as being clearly anticipated by Cadalora et al.

Cadalora et al disclosed a method of varying the loop bandwidth of a PLL (Abstract lines 1-9); comprising inserting a switched capacitance in the damping resistor leg of a low pass filter portion of the PLL (Figure 1, LPF 20 comprises a switched capacitor C3 which is inserted by switches S3-S6 and which is in the feedback path of amplifier 14, which path includes damping resistors R2 and R4, which path is thus a damping resistor leg.); switching the switched capacitance, as a function of a reference frequency and the PLL output frequency (Figure 1, switches S3-S6 are switched by detector 12 which produces output signal 13 as a function of input signals from the output of the VCO and reference input signal 11; column 2, line 60 to column 3, line 4.); the terminology phase frequency detector, frequency phase detector, phase detector, frequency detector refers to devices that most all have some ability to detect various ranges of both phase and

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frequency difference which is an ability that depends on the circuitry rather than the name terminology, and a system diagram name terminology discipline as to what the particular circuitry does is not followed in the art; so that which Cadalora et al call a phase comparator is not presumed to not be a PFD.

3. Claims 7 and 9 are rejected under 35 U.S.C. 102(b.) as being clearly anticipated by Richards, Jr.

Richards, Jr. disclosed PFD (36), VCO (40), divider (42), F1 reference signal (44), F2 output signal (VCO 40 output), LPF (Electronically Controlled Dual Loop Bandwidth LPF 38) including variable impedance damping resistor (68, 62) having an impedance discretely varying between R68 and R62 as a function of the difference between F1 and F2 (determined by mixer 52 connected to the reference input to PFD 36 and via the dividers to the other input of PFD 36, column 1, lines 48-53; column 3, lines 49-59; Figures 1 and 2 which show the interchangeability of this kind of terminology).

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 5, 8 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are indefinite since:

In claim 5, lines 20-22, it does not make sense that the resistor comprises part of the LPF since the LPF comprises the resistor.

In claim 8, lines 9 to 17, it does not make sense that the difference between W2 and W1 is delivered to the switched capacitor circuit if W1 is a frequency component included in the LPF.

In claim 9, line 17, "said mixer" was not said; and lines 18-19, it does not make sense that the resistor comprises part of the LPF since the LPF comprises the resistor.

6. Claims 2, 3 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Mis whose telephone number is (571)272-1765. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Mis
Primary Examiner
Art Unit 2817

Attorney Docket No.
AUS920030579US1

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Boerstler et al.

Title: ADAPTIVE METHOD AND APPARATUS TO CONTROL LOOP BANDWIDTH
OF A PHASE LOCK LOOP

Serial No.: To be assigned

Filed: Herewith

Group: To be assigned

Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

INFORMATION DISCLOSURE STATEMENT

In compliance with the duty of disclosure set forth in 37 C.F.R. ' 1.56, Applicants wish to bring the items cited in the attached Form PTO/SB/08 to the attention of the Examiner. A copy of each item is enclosed for the convenience of the Examiner.

No representation is made, and no representation is intended, that more relevant material does not exist, or that the order of presentation of this material in any way reflects the relative pertinence. The references cited are not intended to constitute an admission of any kind. Specifically, this presentation is not an admission that the items listed in the attached Form PTO/SB/08 are properly citable against the above-identified application as prior art.

Attorney Docket No.
AUS920030579US1

PATENT

Applicants consider the invention to be distinguishable over the references cited.

As this Information Disclosure Statement is being filed before the issuance of the first office action, no fee is enclosed.

Respectfully submitted,

Date: _____

1/23/03



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